**Syed Ali Ammar Zaidi**

**Professional Electrical Engineer**

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**Career Summary:**

Professional Electrical Engineer and Energy Management Specialist with over 5+ years of experience in technical, administrative, and management positions overseeing planning, operations and maintenance activities. Well-versed in the areas of forecasting the electricity demand, financial modeling, load flow analysis, battery energy storage systems (BESS), secondary transmission grids plan, system improvement plans, minimizing interruption as well as the duration of faulty 11 kV circuits, maintenance of switchgear, back feeding grids, grid operations, and pin-pointing underground cable faults. Proposed and implemented cost saving schemes regarding the utilization of abandoned network and introduced new technique related to the troubleshooting of faulty circuits. In addition, I was involved in the preparation of the Sindh region's Medium Term Load Forecast, encompassing numerous aspects and considerations in accordance with the regulator.

**Major** **Accomplishments**:

* As a planning engineer of Hyderabad Electric Supply Company, prepared a power market survey report of FY-2021/22 and FY-2022/23 in accordance regulator NEPRA, Market operator CPPA and with the collaboration of National Transmission Dispatch Company. Hands on experience on the FoxPro software that is utilized for the forecasting purpose by including all the data and details related to new/augmented/conversion of grid, augmentation of power transformers, consumption growth, planned societies, commercial and industrial projects, population growth. At first stage this data is sorted out, then it is managed according to the desired format (as per the distribution code) and then it is analyzed to find out any abnormalities in the given data.
* As an Operation and Maintenance Engineer in K-Electric I have been awarded a Certificate of Appreciation from Chief Distribution Officer for restoration of 11 kV electrical circuits/feeders within total access time (TAT) and resolve underground cable faults i.e. pin hole, short circuit and earth faults by utilizing a parallel loop and managing the load by creating a chain operations.
* Designed a System Improvement Plan (SIP) that includes cost saving, technical innovation and utilization of existing electrical infrastructure. At first I have designed the model on AutoCAD by specifying the connections and terminations and then made a comparison based on before and after effects. In the meantime, I have also made a SWOT analysis identifying the strength and opportunities that it has been providing.
* Completed a training on Technical Operation and Optimization. The highlight of this course was to increase the team’s productivity, enhance my effectiveness, design robust processes and run projects as per the best established practices. I also learnt how to review and control risks, eliminate Mudas (wastes) and enhance value.
* Actively engaged in the consultation process for the development of the Integrated Generation Capacity Expansion Plan (IGCEP) as per the guidelines in the grid code organized by National Transmission and Dispatch Company (NTDC).
* Presented HESCO (DNO) in Capacity Development for Integrated System and Energy Planning Program session organized by USAID. Delivered keynotes related to HESCO’s Medium Term Load Forecasting techniques and improvements that have been made. I identifies the grid expansion issues, its impact on long term forecasting and later on for the procurement of imported fuel for generation and give ideas related to the balancing mechanism of energy (BME).
* Involved in the designing of Solar Planes on Government building roofs as per the directions of Ministry. Calculated the total cost incurred, before/after impacts, saving in electrical consumption. Worked on the benefit to cost analysis report including on-grid system, hybrid system without annual batteries replacement cost and hybrid system with annual batteries replacement cost.
* Worked on the initiation of Energy Efficiency and Conservation department as per the DNO license issued by the regulator (NEPRA). Also lead the team on Demand Side Management (DSM) within EE&C and worked on the peak loading of electricity demand during the fiscal year. Introduced several measures, techniques for energy conservation and also made awareness campaigns in collaboration with National Energy and Conservation Authority (NEECA).
* Attended a workshop on SCADA System in Distribution Network (REEE II) by German Cooperation GIZ.

**Core Strengths & Enabling Skills:**

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| * Operations and Maintenance of 11 kV circuits. * Drawing & Schematics Review/Development * Project Management * Ring Circuit configuration. * Proficient in RCA | * Management of power as per demand and generation * Transformer/Switchgear Testing * Fault Troubleshooting * Power Market Survey | * Planning day ahead forecast incorporating temperature. * Project Planning and Execution * Factory & Site Acceptance Tests * Stakeholder Management |

**Career Experience:**

**Assistant Manager – Demand Forecasting || Hyderabad Electric Supply Company || October 2022 - till date:**

* Proficiently worked as a demand forecasting specialist of 132 kV power system, witnessing the commissioning activities of primary and secondary transmission grid stations, reporting of equipment utilized and required, monitor the progress, review electrical drawings, loading on each line and capacity of power transformer required as per the demand.
* Clear understanding on the different parameters for design, selection, and sizing of the batteries as well leveraging the parameters to arrive at the most optimum sizes of the batteries.
* Creating dashboards and analysis in excel of electrical power demand, drawl, allocation of power and generation availability.
* Responsible for performing the functions of Demand forecasting for compliance with the requirement of section 32 of the NEPRA Act, the distribution code, the grid code, and other applicable documents for Discos annual update.
* Responsible for Power Market Survey Reports (PMS) annually with the help of data from different departments of HESCO for future demand forecasting and demand.
* Conducted simulations using Power Factory and MATLAB for technical modeling and simulation of new units.
* Participated in SAT and FAT testing for products at vendor locations and various depot locations.
* Knowledge on different applications of battery systems like power smoothening, ancillary services, peak shifting and determination of battery profile, dispatch optimization for different applications.
* Investigates design factors of BESS such as function, durability, performance, efficiency, and contractual requirements.
* Strong interpersonal skills and demonstrated ability build client relationships and generate new business opportunities
* Preparation of respective distribution integrated Investment plan (DIIP)
* Power acquisition plan (PAP) approvals and its upward integration for the transmission system expansion plan (TSEP) of NTDC
* Secondary transmission grid (STG) plans of Discos and capacity obligations determined by the Market Operator for each DISCO for future capacity procurement and bilateral contracts.
* To ensure the development of a medium-term forecast of HESCO. To provide coordination support to NTDC in preparation for consolidated demand forecasts
* To review the input data and implement measures to improve its accuracy. To review the forecasting models on a continuing basis, suggest improvements, and liaise with the PDCs for day-ahead forecasting.
* Possess in-depth knowledge of planning and forecasting activities, hands on experience on FoxPro and PSSE for modeling transmission and distribution network.
* Responsible for witnessing upgradation projects of the Secondary Transmission grid (STG) and Distribution of Power (DOP) plans from designing to commissioning in the Transmission and Distribution Network of HESCO.
* Collaborate effectively with all stakeholders in projects, facilitating seamless communication and ensuring successful project outcomes through shared expertise and teamwork and oversee the monitoring of planning system rehabilitation projects from scratch, including feasibility reports, TOR, technical evaluation, commissioning, and testing. Coordinate with the HSEQ department for the implementation of safety culture and standards.
* Ability to work under pressure, plan, organize, and prioritize work effectively.
* Demonstrate rapid decision-making & strong communication skills and act as a reliable go-to person for the team, providing guidance and direction to ensure continuous improvement and successful change management efforts.

**Assistant Manager |Corrective Maintenance| K-Electric Limited || October-2018 till October 2022**

* Specialize as an operation and maintenance expert in HV and LV Substations, dedicated to witnessing of commissioning activities of 11 kV Feeders and control of primary and secondary equipment, providing maintenance shutdowns of 11 kV and 132 kV, review and designing of new schemes, performing cost benefit analysis, producing distribution system designs and fault troubleshooting for 11 kV Grids. Responsible for testing HV substation primary & secondary Electrical equipment.
* Coordinate with maintenance teams to prioritize and address equipment breakdowns promptly, minimizing downtime.
* Proficient in understanding electrical drawings, planning of projects, erection & maintenance of 11KVsubstations involves switches of different manufacturer (i.e Alstom, Areva, Seimens, J&P etc), trafos(500KVA, 750KVA, 1000KVA) and 11KV substation protection (MiCOM P114, MiCOM P115), operation of switches trollies(OCB / VCB) at substations, 11KV/440V overhead network.
* Collaborate with reliability engineers to identify opportunities for improving equipment performance and maximizing uptime
* Provide technical support and guidance throughout project stages, delivering engineering solutions, basic, and detailed specifications, and designs of overhead and underground network at voltage levels of 11kV.
* Liaise with vendors and suppliers to procure necessary spare parts and resources for maintenance activities.
* Prepare, review, and implement Standard Operating Procedures (SOPs) and Check sheets.
* Ensure compliance with safety regulations, environmental standards, and company policies during all maintenance operations.
* Take responsibility for conducting Annual Preventive Maintenance of substation protection equipment, ensuring continuous health and quality assessments for long-term reliability.
* Restoration of 11 kV Feeders from tripping.
* Conduct root cause analysis of equipment failures and develop corrective maintenance strategies to enhance reliability and performance.
* Handy in arranging isolation switch by installing 11KV panel of various manufacturers (i.e Alstom, Areva, Siemens, J&P etc) with earth fault indicators or Ring Main Unit (RMU) where necessary for back feeding provision.
* Utilizing the Ring Circuit by back-feeding the interrupted areas during shutdowns.
* Implement corrective actions that restore equipment functionality and prevent recurrence of issues.
* Root Cause Analysis of hotspots by surveying onsite and identifying any compromise that is being done during maintenance, operation and project execution and implementation of new schemes.
* Skilled in arranging proper isolation of circuit loop for preventive maintenance and corrective maintenance by switching the isolation in substation and installing short & ground rods at overhead system through SLD for mitigation of hazard that involves Human and Asset Safety.
* Support the Line Manager by maintaining the records and assisting with the reports and data for proper QC and network analysis.
* Maintaining the log book and fault sheet of overhead and underground faults that helps in determining the frequency of repetitions liable on the network.
* Coordinate and approve projects of new schemes and erection and commission departments that comply with quality checks & HSEQ policies.
* Proposed cost-saving schemes with the help of GIS.
* During Annual preventive maintenance shutdowns at grids, isolation of circuits and issues PTW to the concerned departments as C-Forms on SAP-PM.
* Coordinate with Network planning (EHT SCADA) and SBOs for Grid operations and load balancing.
* Update 11 kV Single Line Diagram on AUTOCAD and proposed new positions of switchgear on the network.

**Trainee Engineer || Glaxo Smith Kline || Jan-2018 till October 2018**

* Finding the Electrical hotspots by conducting a GAMBA walk.
* Prepare SOP for Earth Testing Methods.
* Identification of improvements in energy augmentation of the industry and give suitable suggestions regarding the use of renewable energy.
* Displayed a dedication to maintaining quality standards and adherence to guidelines

**Education**:

Institute of Business Management (IoBM): Master of Business Administration (MBA)

Mehran UET, Jamshoro: BE Electrical Engineering

Intermediate, Pre-Engineering

Matriculation, Science

**Certifications:**

* **TECHNICAL OPERATION AND OPTIMIZATION**

**•** Certified Training By Mr. Bashir Shaikh, Head Of KE DNA

* **CERTIFICATION OF ENGINEERING**
* Registered Engineer from Pakistan Engineering Council.
* **CERTIFIED TRAINING ON ENGINEERING MANAGEMENT TRAINING PRACTICE (EMTP)**
* Certified training by Central Power Purchasing Agency (CPPA)

**Achievements:**

* **APPRECIATION FROM K-ELECTRIC MANAGEMENT**
* Received KE Champions Gold pin for exceptional services in Distribution Network improvement.
* Received Appreciation Award for completion of duties during monsoon season.

**Personal Traits:**

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| * Leadership * Versatility * Collaborative | * Work Autonomously * Problem Solving * Self-Assessment | * Quick Learner * Decision Making * Self Sufficient |

**IT Skills:**

* Microsoft OFFICE (Word, Excel, Outlook)
* FoxPro
* SAP (PM)
* ETAP

**Language Skills:**

* IELTS (CEFR Level B2) – Overall Band Score 6.5